

CLAIMS

What is claimed is:

1 1. In a disposable absorbent garment, an elastic composite comprising:

2 a base layer;

3 a top layer; and

4 an elastic construction disposed therebetween, said elastic construction including a
5 plurality of spaced apart elastic elements aligned in generally parallel relation;

6 wherein said top and base layers define a first side edge and a second side edge and a
7 longitudinal centerline extending between said side edges, said elastic construction being
8 disposed between said top and base layers and extending between said side edges in a
9 direction generally parallel with or corresponding to said longitudinal centerline; and

10 wherein each said elastic element is oriented along a direction intersecting said
11 longitudinal centerline and said side edges.

1 2. The elastic composite of claim of 1, wherein said elastic composite includes

2 an elasticized region spaced inwardly from said side edges, said elastic construction
3 being disposed in said elasticized region,

4 a first non-elasticized region disposed between said first side edge and said elasticized
5 region, and

6 a second non-elasticized region disposed between said second side edge and said
7 elasticized region.

1 3. The elastic composite of claim 2, wherein said elastic elements are elastic
2 strands.

1 4. The elastic composite of claim 2, wherein said first and second non-elasticized
2 regions provide fastening regions that are generally flat relative to said elastic region.

1 5. The elastic composite of claim 4, wherein at least one of said first and second
2 non-elasticized regions is equipped with a fastening element.

1 6. The elastic composite of claim 5, wherein said fastening element is selected
2 from the group of fastening elements consisting of: adhesive elements and hook and landing
3 elements.

1 7. The elastic composite of claim 2, wherein said elastic elements are attached to
2 at least one of said top and base layers such that said elasticized region is shirred when said
3 elastic composite is disposed in a relaxed, un-stretched state.

1 8. The elastic composite of claim 2, further comprising:

2 a second elasticized region disposed between said side edges, said second elasticized
3 region including a second elastic construction having a plurality of spaced apart elastic
4 elements; and

5 a third non-elasticized region disposed between said first and second elasticized
6 regions.

1 9. The elastic composite of claim 1, wherein said plurality of elastic elements
2 are generally equally spaced apart from one another.

1 10. The elastic composite of claim 1, wherein said elastic elements are spaced
2 inwardly from said side edges and aligned in generally perpendicular relation with a
3 longitudinal centerline of said elastic composite.

1 11. The elastic composite of claim 1, wherein said side edges are elongated and
2 extend longitudinally in generally parallel relation with a longitudinal centerline of said
3 elastic composite, said elastic elements being aligned in generally parallel relation with a
4 cross machine direction of said composite.

1 12. The elastic composite of claim 1, wherein said elastic construction is
2 positioned generally centrally between said side edges.

1 13. A disposable absorbent garment comprising:

2 a topsheet;

3 a backsheet;

4 an absorbent core disposed between said topsheet and said backsheet such that a
5 longitudinal centerline of said garment extends through said topsheet, said backsheet, and
6 said absorbent core, wherein said topsheet, said backsheet and said absorbent core provide a
7 central body of said disposable absorbent garment; and

8 an elastic composite band attached to said central body, said elastic composite band
9 having a first side edge, a second side edge, and a composite centerline extending in a
10 direction between, and in generally parallel relation with, said side edges, said elastic
11 composite band including a base layer, a top layer, and an elastic construction disposed
12 between said top and base layers and spaced inwardly from each said side edge; and

13 wherein said elastic construction includes a plurality of spaced apart elastic elements
14 distributed in a direction extending between said side edges, each said elastic element being
15 aligned in generally perpendicular relation with said composite centerline.

1 14. The disposable absorbent garment of claim 13, wherein said elastic composite
2 band includes

3 an elasticized region positioned between said first and second side edges, said
4 elastic construction being disposed in said elasticized region,

5 a first non-elasticized region positioned between said first side edge and said
6 elasticized region, and

7 a second non-elasticized region positioned between said second side edge and
8 said elasticized region.

1 15. The disposable absorbent garment of claim 14, wherein said elasticized region
2 is disposed generally centrally between said side edges.

- 1 16. The disposable absorbent garment of claim 14, further comprising:
2 a second elasticized region positioned between said first and second side edges, said
3 second elasticized region including a second elastic construction having a plurality of spaced
4 apart elastic elements.
- 1 17. The disposable absorbent garment of claim 14, wherein said elastic elements
2 are elastic strands.
- 1 18. The disposable absorbent garment of claim 14, wherein each of said plurality
2 of elastic strands is generally aligned in perpendicular relation with said side edges.
- 1 19. The disposable absorbent garment of claim 14, wherein said elastic elements
2 are disposed in mutual generally parallel relation.
- 1 20. The disposable absorbent garment of claim 13, wherein said composite
2 centerline corresponds with a machine direction of said elastic composite band.
- 1 21. The disposable absorbent garment of claim 13, wherein said elastic elements
2 are adhered to at least one of said top and base layers such that said elastic region is shirred
3 when said elastic composite band is disposed in a relaxed, un-stretched state, and wherein
4 said first and second non-elasticized regions provide fastening regions that are generally flat
5 relative to said elasticized region.
- 1 22. The disposable absorbent garment of claim 21, wherein one of said first and
2 second elasticized regions is equipped with a fastening element selected from the group of
3 fastening elements consisting of: adhesive elements and hook and landing elements.

1 23. The disposable absorbent garment of claim 13, wherein said topsheet and
2 backsheet define a front end edge and a back end edge through which said longitudinal
3 centerline extends, and a pair of side margins disposed on opposite sides of said core and
4 extending between said front and back end edges, said disposable absorbent garment further
5 comprising:

6 a second elastic composite band that is substantially identical to said first elastic
7 composite band, wherein each of said first and second elastic composite bands is attached in
8 the proximity of one of said end edges of said garment and one of said side margins and
9 extends laterally outward relative to said longitudinal center line to provide a fastening tab
10 thereabout.

1 24. The disposable absorbent garment of claim 13, wherein said topsheet and
2 backsheet define a front end edge and a back end edge through which said longitudinal
3 centerline extends, and a pair of generally longitudinally extending side margins disposed on
4 opposite sides of said core and extending between said front and back end edges, and wherein
5 said elastic composite band is positioned adjacent one of said end edges of said disposable
6 absorbent garment to provide an elastic waistband therealong.

1 25. The disposable absorbent garment of claim 24, further comprising a second
2 elastic composite bank that is substantially identical to said first elastic composite band, said
3 second elastic composite band being positioned adjacent said other end edge of said
4 disposable absorbent garment to provide a second elastic waistband therealong.

1 26. The disposable absorbent garment of claim 13, further comprising:

2 a second elastic composite band substantially identical to said first elastic composite
3 band; and

4 a pair of ear portions for fastening said disposable absorbent garment about the waist
5 of a user, wherein said ear portions extending in opposite lateral directions with respect to
6 said longitudinal center line, each said elastic composite band being incorporated into one of
7 said ear portions.

1 27. The disposable absorbent garment of claim 26, wherein each said elastic
2 composite band is attached near one of said side margins to provide a complete ear portion.

1 28. A disposable absorbent garment, comprising:

2 a topsheet;

3 a backsheet;

4 an absorbent core disposed between said topsheet and said backsheet, wherein a
5 longitudinal center line extends through said topsheet, backsheet, and absorbent core, and
6 wherein said topsheet and said backsheet define a front end edge and a back end edge through
7 which said longitudinal centerline extends and a pair of side margins disposed on opposite
8 sides of said core and extending between said end edges; and

9 a pair of waist fastening portions disposed on opposite sides of said longitudinal
10 centerline and in proximity with one of said side margins, each said waist fastening portion
11 having a first side edge, a second side edge, and a fastening portion centerline extending
12 between said side edges that corresponds with a machine direction of said fastening portion,
13 each said fastening portion including a base layer, a top layer, and an elastic construction
14 disposed between said top and base layers and spaced inwardly from each said side edge, said
15 elastic construction including a plurality of spaced apart elastic elements distributed in a
16 direction between said side edges and in generally perpendicular relation with said fastening
17 portion centerline

18 wherein each fastening portion further includes,

19 an elasticized region positioned between said first and second side edges, said
20 elastic construction being disposed in said elasticized region,

21 a first non-elasticized region positioned between said first side edge and said
22 elasticized region, and

23 a second non-elasticized region positioned between said second side edge and
24 said elasticized region.

1 29. The disposable absorbent garment of claim 28, wherein said elasticized region
2 is positioned generally centrally between said first and second side edges such that said
3 fastening position centerline extends therethrough.

1 30. The disposable absorbent garment of claim 28, wherein said plurality of elastic
2 elements are generally equally spaced apart from one another.

1 31. The disposable absorbent garment of claim 28, wherein said plurality of elastic
2 elements are elastic strands disposed in mutual generally parallel relation.

1 32. The disposable absorbent garment of claim 28, wherein said elastic elements
2 are adhered to at least one of said top and base layers such that said elasticized region is
3 shirred when said elastic composite band is disposed in a relaxed, un-stretched state, and
4 wherein said first and second non-elasticized regions provide fastening regions that are
5 generally flat relative to said elasticized region.

1 33. The disposable absorbent garment of claim 32, wherein, for each fastening
2 waist portion, said first and second side edges are elongated and one of said first and side
3 edges is attached to said central body along one of said side margins to provide a side panel
4 therealong.

1 34. In a disposable absorbent garment, an elastic composite band attached to a
2 central body of the garment, said elastic composite band comprising:

3 a base layer;

4 a top layer; and

5 an elastic construction disposed therebetween, said elastic construction including a
6 plurality of spaced apart elastic strands disposed in mutual generally parallel relation;

7 wherein said top and base layers define a first side edge, a second side edge, and a
8 centerline extending therebetween;

9 wherein said elastic construction is spaced inwardly from said side edges to define an
10 elasticized region positioned generally centrally between said first and second side edges, a
11 first non-elasticized region positioned between said first side edge and said elasticized region,
12 and a second non-elasticized region positioned between said second side edge and said
13 elasticized region;

14 wherein said elastic construction has a centerline extending therethrough that is
15 spaced generally equidistantly from each said side edge, said elastic strands being distributed
16 along said centerline and in generally perpendicular relation therewith.

1 34. The elastic composite band of claim 34, wherein a direction of said centerline
2 corresponds with a machine direction of said elastic composite band.

1 35. The elastic composite band of claim 35, wherein said plurality of elastic
2 strands are generally equally spaced apart from one another.

1 36. The elastic composite band of claim 34, wherein said elastic elements are
2 adhered to said top and base layers such that said elasticized region is shirred when said
3 elastic composite band is disposed in a relaxed, un-stretched state, and wherein said first and
4 second non-elasticized regions provide fastening regions that are generally flat relative to said
5 elasticized region.

1 38. The elastic composite band of Claim 34, wherein said top and base layers are
2 positioned relative to one another such that said top layer defines said first side edge and said
3 base layer defines said second side edge, said first side edge being a side edge of said top
4 layer and said second side edge being a side edge of said base layer.

1 39. The elastic composite band of Claim 34, wherein said top and base layers have
2 corresponding side edges that are offset from one another such that said first side edge of said
3 elastic composite band is defined by a side edge of said top layer and said second side edge of
4 said elastic composite band is defined by a side edge of said base layer.

1 40. A disposable absorbent garment comprising:

2 a topsheet;

3 a backsheet;

4 an absorbent core disposed between said topsheet and said backsheet such that a
5 longitudinal centerline of said garment extends through said topsheet, said backsheet, and
6 said absorbent core, wherein said topsheet, said backsheet and said absorbent core provide a
7 central body of said disposable absorbent garment; and

8 said central body including an elastic composite band located generally centrally
9 thereon and supporting said absorbent core, said elastic composite band having a first side
10 edge, a second side edge, and a composite centerline extending longitudinally in a direction
11 between said side edges, said elastic composite band including a base layer, a top layer, and
12 an elastic construction disposed between said top and base layers and spaced inwardly from
13 each said side edge; and

14 wherein said elastic construction includes a plurality of spaced apart elastic elements
15 distributed in a direction extending between said side edges, each said elastic element being
16 aligned in generally perpendicular relation with said composite centerline.

1 41. The disposable absorbent garment of claim 40, wherein said elastic composite
2 band includes

3 an elasticized region positioned between said first and second side edges, said
4 elastic construction being disposed in said elasticized region,

5 a first non-elasticized region positioned between said first side edge and said
6 elasticized region, and

7 a second non-elasticized region positioned between said second side edge and
8 said elasticized region.

1 42. The disposable absorbent garment of Claim 41, wherein said absorbent cone is
2 adhered to said elastic composite band and movable therewith.

1 43. The disposable absorbent garment of Claim 42, wherein said absorbent cone is
2 an elasticized body.

1 44. In a disposable absorbent garment, an elastic composite band attached to a
2 central body of the garment, said elastic composite band comprising:

3 a base layer;

4 a top layer; and

5 an elastic construction disposed therebetween, said elastic construction including a
6 plurality of spaced apart elastic strands;

7 wherein said top and base layers are offset such that said top layer has a side edge that
8 define a first side edge of said elastic composite band and said base layer has a side edge that
9 defines a second side edge of said elastic composite band;

10 wherein said elastic construction is spaced inwardly from said side edges to define an
11 elasticized region positioned between said first and second side edges, a first non-elasticized
12 region positioned between said first side edge and said elasticized region, and a second non-
13 elasticized region positioned between said second side edge and said elasticized region;

14 wherein said elastic construction has a longitudinal centerline extending therethrough,
15 said elastic strands being generally distributed along said centerline.

1 45. The elastic composite band of claim 44, wherein a direction of said
2 longitudinal centerline is a machine direction of said elastic composite band.

1 46. The elastic composite band of Claim 44, wherein each said elasticized region
2 has an outside section formed by one of said top and base layers and an inside section formed
3 by both top and base layers, said outside section including one of said first and second side
4 edges.

1 47. The elastic composite band of Claim 46, wherein said plurality of strands are
2 disposed in mutual generally parallel relation.

- 1 48. The elastic composite band of Claim 47, wherein said elastic construction is
2 spaced equidistantly from said first and second side edges and each said elastic strand is
3 positioned generally perpendicular to said longitudinal centerline.